FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE ATTORNEY DOCKET NO. 1945 P3 USA SILICON SERIAL NO IN A PATENT AND TRADEMARK OFFICE APPLICANT Shen et al. LIST OF ART CITED BY APPLICANT GROUP Unknown HI ING DATE. Herewith (Use several sheets if necessary) U.S. PATENT DOCUMENTS Examiner EU NOUNTE Ean Kill M MBIR 5 (54) F 198 ST BCT ASS E APPROPRIATI Inmar ΔI 08 64 81 Fair of 427 3.8 10-55 R 716 Α2 -1 -1 02/21/84 5 9 Nishimatar et al 43 4 4 -08.14 54 1 ikano 156 11 25 -4 4 ij 14 4 Hartman 100 043 ŝ A511 0.05.55 Trumpp et al. 156 -165 103 18 56 204 Aδ 1 Fukuta et al $\sqrt{7}$ [1] 10 - 7 116 Okudaira et al----3 ---53 19 ×8 1 . - /. $\Delta 8$ Kiba ()-e -11/21/58 En 3---Benzing 3 A104 4 (4.50) I m, ct al 156 3 of 25 sq. 4) ΔH 4 Santo et al. 1/8A12 6 5 10017- 49 1.6 exit. Freeman et al. 6 4 710 10 50 1.6 $\Delta 15$ 4 Loewerstein et al. Files A147 10-24-59 417 3.4 Koury 415 12 13 90 Yamazaki etal 1:0 A17 1 c) n' [9.91 Sun ct al-19 z Als 11, 26.91 Locweistein stal-1:6 114 . ne ne 0) Long Hai 1:6 643 tu $\Delta 19$ 2 n* 30 9} 1:15 626 A20Miletal A21 8 į, 01.28.92 McRee 1:15 345 A22 16-11-92 Becker et al. 136 645 A23 11 4 (55.8)5 9<u>2</u> 1:6 643 Luni et al. A24 65 125 16.02.92 136 Kadomura 5 101.20.92 i_{λ} 1.6 643 A26 t Cheung et al. A27 -1 03.502 Latchford et al. En ji. 1 17 92 4 🖓 192 428 Davis et al-A29 ų 1. 125.513 Lullowan et ai Fds632 Mu 437 130 2 23 93 1.41 1, .

EXAMINES: Initial of reference considered, whether of not citation is in contour arce was NPT 1960 areas rate innonlinead, on a nor in contourance and not considered. Include copy of this form with next comprimination to applicant.

LORM P1O-1	449	PATENT AND TRADEMARK OFFICE										SERIAL NO NA				
								FFICE	APPLICANT	Shen, et al						
LIS	ST OF A			D BY its if nec			NT		HHANG DATE. Herewith GROUP Unknown							
						_		U.S.	PATENT D	OCUMENTS						
Expouner Impul				:)(1(-)	KI I NU	MBLR			1) \ []	NAMI	(1355	ST 181 788	THING DATE TO APPROPRIATE			
fri	\31			ų.	2	-	11		્રાયા વર્ષ	Lseng	437	1-				
1/52	132		7	(1	-	N.	3	,.	(15. ha);	Charle	1.4	1				
he	433			-		1.2	4	4.	10.26.95	Keller et af	156	643				
Thu	A.54		:	8	1		1)	:	0 25 04	Gabric et al	156	643				
1,	1,5	2		8	2	Σ.	· ·	.,	1 _ 10 10m	Balmashonev et al	1.8	723 R				
Hen	A.56				2	٠.	1	ų.	or 1" 94	Sakar et al	1.4	ı				
Juis	-A > 7				8		٠,	١,	7. 1 T V4	Lamaki et al	6	662				
· fin-	A58				×		-1	ι.	8 Jan 100	Szweikowski etai	116	455				
like	1,50				-4	.1	1	-	1571.04	Chedno et ai	1 5 65	n4 .				
Alin	A40			÷	6	.1	-1	8	1 = 15, 0	Chen, et al	1 4	1				
· 2 26	A41				8	٠.	(1	:	15.25.94	Cathey	136	656				
1	A42				8	Ψ,	!		10.000	Nagavama et al	1.4	n4				
Hi	A43			,	2		1	6	0.1796	Hills et al	156	/4 ¹ .				
flic	.144			8	y.	ŀ	u	-	0,1494	1shimaru	116	643				
ja.	1:5		١.		3		1.	-	11: 10 4 () -	Avdil et al	1.7	81				
Hui	Δ46								15" 1 198	Rabas ar at	1.,	- 133				
here	:A47				;		ς.	£,	08.22.95	lones et al	276	17				
Ŷ~	A48	·		4	ų,	:			1 = 12	Lukuda et al	1.8	723 MP				
Her	1/49	-2			4	f ₁	3.	1	00 00 m	Bornstein et al	47.7	189				
yu.	$\Delta^{\mathcal{E}_{\Omega}}$		١.	1	ı	1	;		art 28,900	Chen, et ai	457	187				
fore	$A^{4}1$				· ·	1		-	. i. 24 (a)	torewal	216	68				
#n	4.5		, n	-	11	1.	:	1	-2 (5 Z	Keiler	458	720				
Her	A53	- 1	0	-	6	-	-	į.	1 - 10/5 - 17	Roberts et al	2.0	67				
Ric	154		^		-	-				r howing of a	2".	4.7				
Jan	1:5		6	ı i	4		4,		" + <u>}</u> /"	Keijer	21.7	324				
fre	$A^{\dagger} 6$		7	-	3	٠,	i.	3	05 (80.08	Saito	4 -7	192				
1/200	A+7			-,	6	1		1,	10 <u>26 98</u>	Ye et al	4 S	7 11				
· Lyii	,178		-	6	-		Ŀ		. c, 'c, o <u>s</u> ,	Imat et di	4*-8	710				
Air	159		-	8	ς	_	-	8	18 1818	Shang, et al	1 -4	ı				
file	\fst :	:		8	8		.,	ij.	15 4 98	Steper, et al	156	34%				
EXAMINER			-4	11	ι. (.	(l			133.11 (7)	esting pro-	7 72 1			

A LTORNEY DOCKET NO. 1945 P3/USA, SILICON SERIAL NO IN A U.S. DEPARTMENT OF COMMERCE FORM PTO-1449 PATENT AND TRADEMARK OFFICE APPLICANT. Shen et al. LIST OF ART CITED BY APPLICANT GROUP Unknown FILING DATE. Herewith (Use several sheets if necessary) U.S. PATENT DOCUMENTS HINGDAH . i Ass SEBEL 155 DOCKET NUMBER $\pm i \, \mathrm{MH}$ 2.4MED SPPROPRIATI Initial 216 58 TI9 D2 98 Savas, et al. A61 438 10.06.98 Ye et al-A62 134 1.1 Ü 3 12 01 98 Shrotřiya 4 1.6-A63 1.1 134 ij 12 15 98 Xi, et al 4 **A64** ; u2 n2 99 458 720 Shiau et al A65 710 11 n2 //9 99 Brunemeier et al 438 ij 4 6 A66 02.23/99 3 3 bHoh, et al 467 216 7 113 119 99 68 5 5 Tepman, et al. A68 100 A70 ATT 472 A73 $\Delta 74$ A77 A78A79 ASO A81482 A83484 A85A86 A87A88A89

EXAMINER. Initial if reference considered, whether or not citation is in conformance with MPLP to 2. Draw the through citation it not its conformance and not considered. It shows only of this form with next communication to applicant.

FORM PTO-1	449		1	S DI PA	AR EME	MODE	COMM	ERCL	ATTORNEY	DOCKEL NO - 1945 P3 US	4 SH ICON	.	SERIAL NO	
					NDIR					Shen et al			1	
LIS	ST OF A					LICA	NT		HINGDA				GROLP 1	
	,	e seite	tai stige	to the	. 0554115	101			l					Kinegun
	<u> </u>	1					F(OREI	GN PATEN	T DOCUMENTS	1	[
				DOC]	KELNU	MBLR			DAH	COUNTRY	CLASS	SUBCLASS	ir v	SI ATION
				Т	T	1	1	Ι					YES	<u> </u>
4 (0	131	(3	2	7	=		-4	;	06 22 88	FP Application				
1,4	B2	11	3	i	4	1.7	17		05 [1189	LP Application				
here	B3	į I	4	6	3	;	-	1	01/02/92	LP Application				
¥ '	B4	11	5			(1)	4	ì	12/02/02	LP Application				
Jalian .	B5	(1	-	-	5	5	4	6	084893	FP Application				
_دولها	Bo	"	6	١,	-		, n	ļ -	((2.21 sn.	FP Application				
11-	B7	()	7	-4	l.	(1	1	ς	12 04 96	1P Application	ļ			
figur Fike	B8	ń	7	9	11	6	3	3	020507	FP Application	<u> </u>			
file	Во	-1	1	3	2	4		11	04.08.93	German Application				
1,404	B10	6	1	7	7	11	10	3	06 24 94	Japan			/	
2,	B11	7		2	Ly.	S	-	-,	11 31 95	Tapan			,	
- Jun	B12	ij	ļ ^.		-		1	5	775 23 VIII.	PCT				
k. 1	Bli		 	ļ 	 	 	I .	 	l		+		l ,	
	B14			ļ	<u> </u>									
	B15				ļ									
	B16						<u> </u>							
	[3] 7							ļ						
	ВІК			ļ										
	B19													
	_B20													
	is21.													
	B22													
	B23													
	B24													
	B25													
	B26													
	B27													
		!	1				1				!			
	U.	.		<u> </u>	1		.	.	ļ	_	.			
	ВЗ-		1											
EXAMINER		4	Ma	e		سهار					DAILCO	SIDERED 2	16/02	
17 (\$115) h		•		e . <u>1</u>			÷ .		111	and it is a second of	- topo - t	i e	7	
sain at the fi	ora with n	·**(1 c c)(1	191701114	1110111110	9111 × 9	1			Sec. 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	Supplied to the second				Circumsul-

FORM P10-1	449	US DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	A FLORNEY DOCKEL NO. 1945 P3 USA	SILICON	SERIAL NO - N A
1.15	CT OF 4	ART CITED BY APPLICANT	APPLICANT Shen, et al	7/10	Y
		se several shorts at necessary)	traScibAil ilcassi		GROUP Integran
		OTHER ART (Includin	g Author, Title, Date, Pertinent	Pages, etc.)	
	Cl	Avdil et al. Multiple Steady States in a Radio I : <u>J. Appl. Phys.</u> Volume 69. No. 1. January 1. 1994			
ight	C2	Hillenius S.J. et al. "A Symmetric Salim cron C.N	MOS Technology <u>IEEE</u> pares 232-257 198		
ريعن إر ۽	(}	PCT Notification of International Search Report da	sted October 28 - 1999		
	(4	PCT Notification of International Search Report da	ited Lebruary 4 (1966)		
	C5				
	('6				
	(-				
11	6.8				
	Çu				
	(*10)			-	
	C12			1 - January State Company	The state of the s
	CJ3			,	
	(]-1		- 1		
	(113				3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
	(16				
	C17				
	(18			**************************************	
	C19				
	(2/5				
		Lagrage, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,		DATE CONSIDERED	

TXAMINER. Initial if reference considered, whether or not citation is in conformance with arrest companies copy of this form with next communication to applicant

PENDING U.S. PATENT APPLICATIONS

ATTORNEY DOCKET NO.:

1945.P3/USA/SILICON

SERIAL NUMBER:

N/A

FILING DATE: INVENTORS.

HEREWITH SHEN, ET AL

EXAMINER INITIAI		PENDING U.S. PATENT APPLICATIONS
Aus	DI	U.S. Patent Application entitled, "Method for Improved Cleaning of Substrate Processing System"; filed July 11, 1997; Serial No. 08/893,922; Inventors: Kao, et al.
Acc	D2	U.S. Patent Application entitled, "Apparatus for Improved Remote Microwave Plasma source for Use with Substrate Processing Systems": filed April 23, 1997; Serial No. 08/839,111, Inventors: Kao, et al.
	D3	U.S. Patent Application entitled, "Method and Apparatus for Determining the Endpoint in a Plasma Cleaning Process"; filed July 2, 1997; Serial No. 08/887,165; Inventors: Subrahmanyam, et al.
	D4	U.S. Patent Application entitled, "Apparatus and Method for Efficient and Compact Remote Microwave Plasma Generation"; filed April 22, 1997; Serial No. 08/839,007; Inventor: Bhatnagar
	D5	U.S. Patent Application entitled, "Method and Apparatus for Pre-stabilized Plasma Generation for Microwave Clean Applications": filed November 13, 1996; Serial No 08/746.658; Inventors: Fong, et al.
	D6	U.S. Patent Application entitled, "Inductively Coupled HDP-CVD Reactor"; filed May 29, 1894, 1894, 1895, 189
	D7	U.S. Patent Application entitled, "Symmetric Tunable Inductively Coupled HDP-CVD Reactor": filed July 15, 1996; Serial No. 08 679,927, Inventors: Redeker, et al.
	D8	U.S. Patent Application entitled. "Apparatus and Methods for Upgraded Substrate Processing System with Microwave Plasma Source": tiled March 5, 1997; Serial No. 08/811,627; Inventors: Tanaka, et al.
Sur	D9	U.S. Patent Application entitled, "Microwave Apparatus for In-situ Vacuum Line Cleaning for Substrate Processing Equipment": filed October 30, 1996; Serial No. 08-741.241: Inventors: Pang. et al.
	D10	
	D11	
	D12	
	D13	
I	D14	

				DLPA	RIMIN	LOF C	MMERCI	L	GIORNI Y DO	KKI I NO	1945 bz 20 10	ON CHANG	12	1 51	RLM SC 59	
SW b10-1445	Sally,		PAI	H-71-A	ND IR	DI MAI	MMERCI REOLFICI		applicant st	H-N 14 N					ROLP 1965	1746
٠, ٠		OTO	TEDI	BY APP	LICAN	1			HINGDAH :	2 18 00						
	il so	e seveta	il sheets	it neces	pdi v l				. PATENT DO				1		ali INC	.,
- 4,		-						Ť	DATE		< 1211	0.48	1. "E. 27.		हो प्रसिध्यः इ.स.च्या	SPRES I
Xamitici			Т	(it it it	1176	1:51 15					X.187.		6.17			
The C	1.15	1	-		8		<u></u>				ockrey	138	710			
Lon	ΔB	1	-	-		.,	<u>'</u>	-+	1 1580	-	K IKW					
	ΑC				 											
	71)				-											
	Al:				ļ		+-+									
	M			-		 	++			1				}		
	λG		-	 	-	+	+			1						
	ΔН			-	+-	+	+									
	AL	-	-	-		+	+									
	VI	 		-	+-	+	+									
	AK							150	DREIGN PATE	NT DOCU	JENTS				10.5	NSI ATION
							.,		D711		COLNIRY	(13	SS SUBCI	172	115_	50
				[)4)(KLI	VL/MB1										
	 			- T-	\neg	\neg										
	71		+-	\dashv	1											
	AM		-	-	_											
	1				Ť	Ĺ		1					15.	we are specially		
	10			1												
	. \ }						OTHER	ART (Including Auth	or, Title, D	ite, Pertinent I	ages, etc.)				
		0														
	 -									 -						
		kR														
		15														
	İ	M														
		AL.														
1		$II_{\bar{i}}$														
-		MA.	1													
		1.7												IIM DEI	, 2%	11:



SHH+I+OF+

TORM PTO-J	140		(\$) ΡΑ	ን. DLP: ! የ አገጉ	and ar	MY OF A	COMN ARK O	H RCI 41 ICI	ALIORNE	Y DOCKET NO - 1945 P3 U	SA SILICON		SERIM NO 09 507 629	}
LIS	T OF A	ART	CITE	D BY	APP	LICA	NT		APPLICAN	1 Shen et al				1, 1,
	et.	se seve	rat shed	ets it ne	cessary !)			FILING DA	H - 02-18-2000			GROUP (4	177k
								U.S.	PATENT I	OCUMENTS				
L samet et Initial				; ж.н.	KLLNI	MBI R			DAH	NAMI	(1.355	.SUBCLASS	F 7 PN: H APPR	DATE OPRIATE
free.	AA	-	-	1)	10	7	1	1	12 23 97	Litao	42,	建 723	21 (11)	77 N2 VII
Brui	AB	1,	1	ų,	1,1	-	i	Υ .	(-7.18 (ii))	Hapime et al	4 7 .	714		
	-\(*											FLUE	21./6-6	7
	ΑĐ													
	Al										٠.٠			
	.Al										(H.).	70	0
	AG	ļ	ļ											
	AH				<u> </u>	<u> </u>		ļ						
	17													
		T					FC	REIC	ON PATEN	T DOCUMENTS		•		
		:		DOC	KH N	MBLR			DAH	COUNTRY	CLASS	SUBCLASS	IRANS	LAHON
			1		Т	т —	 	T			1		YES	\ ()
fer	7.1	11	I	11	5	-	4	27	02.27.89	Japan			(X) Abstract only	
fan	ΛK	ı		2	1		8	7	187 (2.48)	Japan				\
Jy m. r	M	11		0.1	.,	8		3.	115 mg sus	1 P			\	
* 1	1.11					ļ								
	122						$oldsymbol{ol}}}}}}}}}}}}}}}}}}$							
				0	THE	R AR	T (In	cludin	g Author.	Title, Date, Pertinent	t Pages, etc.)		
4 (c)	40	PC	l' Searc	h Repo	ort date	ed 11-8	00							
	ΛP													
	ΔQ													
LXXMINER			45/0	•		Ç.	-				DVIICO	NSIDERED	2/.//	
EXAMINER	Initial	ıf refe	rence (zonside	ered. w	liether -	or not	citation	is in conform	nance with MPFP 609, D	raw line throu	gh citation if no	∠ t in conform	ance and

not considered. Include copy of this form with next communication to applicant

TORM PTO 14	10 CA	Dr.	Joan.	P V	RIME ND TR	NEOF (OMM ARK O	RCI HICE	ALTORNEY	DOCK! NO #43645 US	χ pe3 +1 (H .	SILICON JB	SERIAL NO 109 SUZ (29)	
1 14:22	ΓOF A	DT 4	TITE						APPLICAN	I Shen, et al				
1.18)	LOF A	KI	i i dia	to thes	asatt	LAN A			HINGDA	11 - 92 18 2 - 9			GROB POT	1m
								U.S. 1	PATENT D	OCUMENTS				- 10
Examiner	-			L)(a)(SELSI	MBER			DAH	NAME	(1)	SI BUL ASS	THTE G	
Instal			T	T	T -	T		1			150	6-12-1	11 (1118)	7 10 11
fue	11	7		'	!	;	.,		42,98	Loewenstein	196	(42)		
ALC	ΔB	-	1.	-	<u> </u>	Υ		15	2000	Ke for et al	1			
	.10	-	190-		<u> </u>	<u> </u>	 	ļ						
	<u> </u>	_	-	** 1 ** v.	-	-	 							
	\i			+ -			<u> </u>	+		14				
	\\	-	1	 	-		 	1						
	ACr	<u> </u>	-			 	-							
		-	+-	 	 	-								
	\	l	J	1,	1		F.C	RFIG	ON PATEN	IT DOCUMENTS				
								THE !			(1)		TRANS	1.71102
)()(KI I VI	LMBER	3		DAH	COUNTRY	(////	2110(1(3)	318	<u> </u>
Hen	χI		*	;	-	1	٠,		4 22 48	TP				
Kin	14		1						1 " 8/-	LP				
£4	٠,٠	T 1		ļ 	1	1	:	<u> </u>	·				<u> </u>	
	\N <u>1</u>													
	11									<u> </u>				
				C	THE	R AR	<u>T (In</u>	cludi	ng Author,	Title, Date, Pertinen	it Pages, etc	.)		
fer	λ()	PC	I Repo	irt date	J 06 2.	2 01. E	uropea	m Pater	nt Office, P.B	. 5818 Patentlaan 2 NJ -2.	280 HV Rijsw	ijk		
An Am	ΔP	Zal Ch	eski, e amber	t al "Ti ". <u>Flect</u>	ingster rochen	r Silicio neul So	le Poly ociety	silicor Proceed	Stack Litchin lings Volume	g using Mixed Fluorine C 98-4, pages 203-209	hlorine Chemi	stry in a High D	Jensity Plasm.	,1
fair	ĄQ	-												
	8 -		1	ء ــــــــــــــــــــــــــــــــــــ										
EXAMINER		_1	£ (c.			<u>(</u>	t; -	and the second			DATEC	ONSIDERED	-76/	(-

EXAMPSER: Initial if reference considered, whether or not citation is in conformance with MPLP 609; Draw line through citation it not in conformance and not considered. Include copy of this form with next communication to applicant.

	=:=			41 2 1	o) (()	MME	RCT	De	x KH NO	ar ast Sypost 10H	SILICON IB		APPLICATION NO NO SOT 579
ANO ##	+1.3	(11.51	721)	TRAD	17148	KONI	, .	-	PPLICANT	Sher et al			
ORMATI	15-11	dscT	OSU CICO	RES	TATI N	MF	NT	-		ment 2			LONG PARTINI
l.	की बार। • 17	APP ar sta	T IV I	144.50	: \ : \			1_				The state of the s	
							U	J .S.	PATEN	T DOCUMENTS		10/13	HUNGDATI
AMINER		l v	и : М	1111	ı MBI	R			1.711	NAME	11111	SUBCLAS	II APPROPRIATE
NHM					T	T		-	16, 5.45	Wang at ac	片	01913	
the	`	-			<u> </u>	1			(B4 -4 Z	Hotosis	1.55	643	
100			-	1:	1	1			10:31 4	Okudada Ca	12,6	19-13-	
M.c.		,					-	\perp					
						+-			WOND MHC.			Dr-	
			-	-	-	-	+-	-			-	RECE FEB	IVER
		-	+-	-	-	+	+-	-				128	2002
	-	-	+	+	-	-	+					TC 12	00
	-	+-	+	-									00
	\dagger	+									NTC		
							F	OR	EIGN PA	ATENT DOCUME	NIS	s sibci	AS TRANSLATION
	1		 '	T MES	11	MHE			Ì	1		-+	
									-				
		A	-	=	_								
	+	+	+	+			-+			10-1			
	+	+	+										
	+	-									D. C. Darwins	nt Pages, el	c.)
				OTI	IER I	DOC	UMI	ENT	S (Inclu	ding Author, Title,	Date, Pertine	75. 2 Gg-0, 11.	
			<i>i</i>				۔، ذر				Anh MPFP 609 Applicant	AL CONSIDE	RED 3/2//